

What is claimed is:

1. An electromagnetic valve device comprising:

a fixed core;

a cylindrical movable core;

a valve member for reciprocating in an axial direction of the movable core in a cooperative manner with the movable core to open and close a fluid path;

a coil section for forming a magnetic field by electrical conduction thereof to attract the movable core to the fixed core so as to move the movable core in the axial direction; and

a guide member having a guide wall for guiding the movable core in the axial direction from inside or outside of the movable core in its radial direction,

wherein the guide wall, in the radial direction, defines a space inside the guide wall, wherein the guide wall is for guiding the movable core from the inside in the radial direction, or the guide wall defines a space outside the guide wall in the radial direction, wherein the guide wall is for guiding the movable core from the outside in the radial direction, and

the guide wall is elastically deformable so as to be deflected through the space when the guide wall is pressed by the movable core being displaced in the radial direction.

2. The electromagnetic valve device according to claim 1, wherein the guide wall and the space are formed so as to be continuous in a circumferential direction about the movable

core.

3. The electromagnetic valve device according to claim 1, wherein an elastic member smaller than the space is provided in the space.

4. The electromagnetic valve device according to claim 1, further comprising a body covering the fixed core and the coil section, wherein the guide member is formed separately from the body.

5. The electromagnetic valve device according to claim 3, further comprising a body covering the fixed core and the coil section, wherein the guide member is formed separately from the body.

6. The electromagnetic valve device according to claim 1, further comprising a body covering the fixed core and the coil section, wherein the guide member is formed by integral resin molding with the body.

7. The electromagnetic valve device according to claim 3, further comprising a body covering the fixed core and the coil section, wherein the guide member is formed by integral resin molding with the body.

8. The electromagnetic valve device according to claim 1, further comprising:

a regulating member for regulating movement of the movable core in the axial direction,

wherein the guide member is formed by integral resin molding with the regulating member.

9. The electromagnetic valve device according to claim 7, further comprising:

a regulating member for regulating movement of the movable core in the axial direction,

wherein the guide member is formed by integral resin molding with the regulating member.

10. The electromagnetic valve device according to claim 1, further comprising:

a plurality of support members provided so that rigidity of the movable core in the radial direction is higher than that in the axial direction, for supporting a plurality of portions of the movable core in the axial direction, respectively.

11. The electromagnetic valve device according to claim 9, further comprising:

a plurality of support members provided so that rigidity of the movable core in the radial direction is higher than that in the axial direction, for supporting a plurality of portions of the movable core in the axial direction, respectively.

12. An electromagnetic valve device comprising:

- a fixed core;
- a cylindrical movable core;
- a valve member for reciprocating in an axial direction of the movable core in a cooperative manner with the movable core to open and close a fluid path;
- a coil section for forming a magnetic field by electrical conduction thereof to attract the movable core to the fixed core so as to move the movable core in the axial direction;
- a guide member for guiding the movable core in the axial direction from inside or outside of the movable core in its radial direction; and
- a plurality of support members, provided so that rigidity of the movable core in the radial direction is higher than that in the axial direction, for supporting a plurality of portions of the movable core in the axial direction, respectively.

13. The electromagnetic valve device according to claim 12, wherein at least one of the plurality of support members is constituted by any one of a flat spring and a coil spring.

14. The electromagnetic valve device according to claim 12, wherein the coil spring has such a shape that a coil diameter decreases from a first end, in a coil axis direction coinciding with the axial direction, toward a second end.